

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	WT Docket No. 02-285
Amendment of Sections 90.20 and 90.175	)	RM-10077
of the Commission's Rules for Frequency	)	
Coordination of Public Safety Frequencies	)	
in the Private Land Mobile Radio Below-470	)	
MHz Band	)	

**COMMENTS OF THE FORESTRY CONSERVATION COMMUNICATIONS  
ASSOCIATION**

Forestry Conservation Communications Association ("FCCA") is a non-profit "501 (c) (3)" corporation consisting of state officials that are charged at the state level with the task of protecting persons, property and natural resources in the vast forested areas across the nation.

The National Association of State Foresters and the International Association of Fish and Wildlife Agencies sponsor FCCA. FCCA member agencies have built and maintain statewide emergency radio systems in 48 states across the nation. These wide area radio systems are used for normal operations but become critically important in dealing with all types of natural disasters particularly in fighting wild fires. These systems have been built and expanded on 133 VHF frequencies assigned to the Forestry Conservation Service by the Commission. Because wild fires do not respect state boundaries the frequencies are coordinated with adjoining states and with Canada where

necessary. They are also designed to work with the U.S. Forest Service, the U.S. Park Service and the Bureau of Land Management.

These VHF licenses have long afforded the states with highly efficient communications systems because they cover wide areas at a low cost. The Commission's database shows 330 statewide licenses covering 2,344 frequencies in this service. One of the most challenging problems, facing FCCA today, is protecting these systems from interference threatened by other coordinators trying to put relatively small local users on these frequencies. The only way we can do this is to have the ability to deny concurrence when necessary.

It appears that APCO is the only Public Safety Coordinator that believes that there is a need to revisit the issue of competitive coordination for frequencies below 470 in the Public Safety Pool. FCCA feels that the reasons for rejecting competitive coordination in 1997 are still valid today.

APCO argues that implementation of ULS is a reason to move to competitive coordination. FCCA agrees that ULS has improved the coordination process and the transfer of information between coordinators. However, ULS does not contain all the information needed to provide accurate coordination for large statewide systems. Most importantly, it will not provide for statewide license recognition and does not contain repeater input frequencies and tone information. To coordinate frequencies in the Forestry Conservation Pool, FCCA still relies upon its knowledge of the systems, personal contact with state agency users and letters of concurrence from users when in doubt. ULS is a good coordination tool but it is not the "be all-end all" to the process of coordination.

FCCA believes that coordination in the Local Government Radio Service is not comparable to the other public safety radio services. Local government concerns mainly smaller local systems, while the main focus in Forestry Conservation is large statewide communication systems with service that cover hundreds of square miles. Comparing 700 and 800 MHz coordination with coordination below 470 MHz is like comparing apples and oranges and that any attempt to introduce this as an argument for competitive coordination is without merit.

Introducing competitive coordination will not save any money. FCCA does not charge additional fees when coordinating a frequency that has to have concurrence from another coordinator and FCCA assumes that the other coordinators follow the same procedure. FCCA passes the cost charged by the other coordinator on to the applicant without additional charges for processing the application. When FCCA does the coordination it charges the applicant. FCCA then protects that frequency for the future

Competitive coordination will not provide a more efficient coordination process. The current process is not inefficient and continues to improve as electronic filing and data exchange evolves. The inter-category coordination process works well when the frequencies are all approved. If a frequency is denied, the application is held until a new frequency is found or a compromise is reached between the coordinators involved. Some may look upon this as inefficient and unproductive but it is not -- this is just part of the coordination process essential to the protection of the existing systems.

FCCA does not agree with APCO's statement that all public safety frequency coordinators are broadly representative of licensees in the public safety pool of frequencies. FCCA's main emphasis is the Forestry Conservation Radio Service and its

expertise is in this particular frequency pool. FCCA and the various states it serves are comfortable with the coordination process requiring concurrence between coordinators.

Nor is it in the best interests of the public to adopt APCO's proposal for competitive frequency coordination. FCCA is not in the business to compete with the other Public Safety Coordinators. FCCA's goal is to provide for increased spectrum use for new systems but also to protect existing systems from interference. FCCA has unique and specialized knowledge of its rather complicated radio systems and the special needs of the state agencies that the other public safety coordinators do not necessarily have. During the past year, about 30% of the applications sent to FCCA by APCO for concurrence and over 20% of the IMSA applications have necessitated rejection by the FCCA. These denied applications for the most part were for frequencies that are part of a statewide system. If the FCCA had not been allowed to do its job and these applications had been licensed, major interference problems would have resulted. It is in the best interest of the public to continue the coordination process as it stands, with each party coordinating the frequencies that they were assigned and using the concurrence process for sharing.

It should be noted that APCO was the sole coordinator for the Local Government Radio Service until Refarming changed that in 1997. APCO, for the most part, remains the primary coordinator for the Local Government Radio Service after Refarming. There is no evidence to show that fees have been reduced because of competition. One should not compare 700 and 800 MHz coordination with coordination below 470 MHz. Most 700 and 800MHz are subject to regional planning and further APCO was sole coordinator for all public safety non-NPSPAC 800 MHz. In addition, this was new open spectrum.

In contrast, the frequencies below 470 represent the result of discreet planning by the public safety coordinators to meet specific needs of the entities they represent and is already intensely populated.

The 450 to 470 MHz frequencies are also not a good example to support competitive coordination. This frequency band has always been shared. FCCA has some statewide users on these frequencies and has to watch these frequencies and check for coordination activity. This is difficult because there is no concurrence requirement on these frequencies.

FCCA sees sharing as a one-way street, meaning it is asked by other coordinators to share the Forest Conservation Frequency Spectrum but the FCCA does not actively seek frequencies from the other coordinators.

APCO seems to believe that concurrence process impedes the sharing of spectrum and infers that other coordinators are hoarding and are reluctant to share the spectrum. The FCCA goal is not hoarding spectrum but to manage the spectrum in a responsible way. FCCA would like to grant every request for spectrum and FCCA coordinators do not like to deny frequency requests. FCCA records show that we share spectrum but we do not rubber-stamp every concurrence request. We check the other coordinators' work to make sure that they did not miss something. We believe that this is what the concurrence process is about and that this is part of the check and balances of the coordination process. FCCA records prove that concurrence process is needed because our coordinators are continually finding major interference problems in applications screened for concurrence.

FCCA believes strongly that competition will disrupt the coordination process undermining critical communication systems and increasing the burden on the FCC. It will increase disputes between coordinators and delay critical communication systems. There are conflicts between frequency coordinators now but these are usually worked out through the concurrence process avoiding the need for the FCC to arbitrate. Without the checks and balances of the concurrence system the burden to settle any conflicts between coordinators will be on the FCC.

Under the APCO's competition concept (unless changed in the future) the coordinators will have to utilize ULS to check for coordination activities in the frequency pools. When conflicts are found, since the application in question is already at the FCC, who will be responsible for settling the conflict? Will it be the FCC? We fear that this will undermine the process and only increase the burden on the Commission.

By-passing the checks and balances of the present concurrence process will result in an increase in interference problems. No one has addressed this. APCO has been set up as the public safety interference arbitrator but at present APCO passes any interference problem on to the coordinator of the frequency pool in which the frequency in dispute falls. FCCA handles most frequency interference problems in Forestry Conservation in-house. What happens under competition? Does the coordinator who did the original coordination, the coordinator of record for the frequency pool in which the interference occurs, APCO or the FCC settle the problem?

FCCA does not condone warehousing or the hoarding of spectrum. Forestry Conservation Radio Service users have large statewide communication systems and these large systems use spectrum. APCO and other parties may look at the large number of

statewide licenses in the Forestry Conservation Pool and consider this warehousing spectrum. The majority of these frequencies are used everyday for repeaters, base stations and mobile operation but some of these frequencies are in reserve for large event use. For example, most state forestry agencies need to have banks of frequencies to use for tactical communication when fighting large fires. Because they do not know in what part of the state these fires will occur, these frequencies have to be clear for statewide use. FCCA contends that this is not warehousing but using the spectrum, as it was intended to be used, to protect our rural population, our forests and national resources.

FCCA is very concerned that if the rules are changed to incorporate competitive frequency coordination that spectrum used in these statewide systems will be in jeopardy. Other public safety coordinators will target these frequencies because the frequency search programs now in use show these frequencies as clear.\*

It is proposed that if the frequency coordinators use contour overlap analysis, it would eliminate coordination errors. This argument is based on an assumption that any coordinator can coordinate any public safety frequency by using contour overlap analysis to determine if a frequency at a specific location interferes with existing users.

A contour overlap analysis checks the data base for adjacent and co-channel users at specific locations at a radius from the new station being coordinated and then draws the contour. For the contour analysis to work the frequencies in the database have to be assigned to a specific location (latitude and longitude). In other words, contour overlap analysis will not work for statewide mobile and statewide temporary frequencies because they are not identified by a specific location. As noted above, the majority of state

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\* It appears that the Commission is sensitive to the problem because the NPRM cites the Chandler, Oklahoma case, (f.n.114, page 14). It took two years and countless manhours to resolve this.

agencies operate statewide and interstate radio systems. Using contour overlap analysis as proposed can not protect these important frequencies.

Furthermore, contour overlap analysis is not a good real life model for actual RF propagation as it exists in the forest and rural areas where Forestry Conservation users operate. Using contour overlap analysis as the criteria for granting an application will result in a plethora of interference complaints.

Wide area systems are usually limited to one mobile relay serving several counties, whereas APCO systems usually have several mobile relays per county. Because of this, APCO systems are almost never "captured" or de-sensed by competing signals at their receivers. Therefore, APCO coordinators may not have a full appreciation for the problems facing wide area Forestry Conservation systems.

A typical Forestry Conservation worker may be working alone in a remote, forested area. In most cases, his hand-held radio is his only life-line. When this worker needs to communicate, his signal is usually marginal at the mobile relay receiver. The marginal signal is easily interfered with by capture or receiver de-sense from stronger signals.

Most statewide mobile relays are located on mountain summits or high towers where the receivers are subject to picking-up signals from long distances. While this capability is desirable to provide wide area coverage, it also makes the receiver subject to interference from long distances. This is why the FCCA coordinator is so important. They are aware that the proper assignment of frequencies in neighboring regions can avoid much trouble to existing systems, even where contour overlap studies have shown that there should not be a problem. A mountain-top transmitter operating on the same



channel as a remote mountain-top receiver can potentially “override” a hand-held radio’s signal.

New York State has recently solved a receiver interference problem with an APCO user in Luzerne County, Pennsylvania. Luzerne County’s newly constructed transmitter was operating on the same channel as New York’s mobile relay receiver in Schulyler County, New York. Contour analysis showed that there should be no interference, however, the capture effect of the Luzerne County’s signal caused severe interference to New York’s mobile relay. Through the efforts of the FCCA coordinator and the spirit of cooperation between the affected agencies, the problem was “fixed.” A new frequency was assigned to Luzerne County and New York regained use of its repeater. However, many man hours over a year and a half were required to solve this one problem. This exercise has convinced FCCA that interference protection of legacy systems is the most important service that the FCCA coordinator provides to the state Forestry agencies.

As noted above, the frequency search programs used by coordinators do not show the statewide licenses and the same problem occurs in contour overlap analysis. These programs cannot find frequencies unless a latitude and longitude identify them. FCCA Frequency Coordinators have to check each frequency requested by state and adjoining states to make sure they are clear before approving it.

FCCA Coordinators are familiar with their clients and know to look out for this problem. They also have to look out for repeater input frequencies because they are not in the database.

There is no question that APCO continues to grow along with their police clientele's need for wireless communications. This growth is partially due to the constantly expanding urban interface. More of the public seek the serenity of nature and are calling large tracts of woodland home. As a result, demands are increased on all public safety entities. However, by providing APCO the ability to coordinate any user on any frequency will result in interference to legacy statewide systems. These systems were installed and are used to protect not just the highways, parks and forests but the same people and property that APCO's clientele protect.

The answer to limited spectrum is not in stacking public safety users on top of one another creating more interference but through the use of well-developed policy fostering cooperation between the coordinators. After all, the PLMR frequency coordinators are there to support their client base. It's no secret that in the aftermath of 911 and the recent sniper shootings, public safety officials are in the limelight and continue to receive funds to further improve complex communications systems. APCO should use its influence not to encourage the FCC to establish competitive coordination but to assist the recipients of these funds to continue to research ways to meet today's wireless challenges. Programs like the 700 MHz allocation will alleviate much of the public safety frequency issues. The answer lay not in competitive coordination which threatens low-band and high-band VHF systems, but with finding how technology can support our needs as public service entities.

FCCA feels that it has done a good job as the Commission's "band manager" for the blocks of VHF spectrum assigned to it. All it seeks is the ability to continue this work for the Commission and the states it serves.

Respectfully submitted,



John Berst  
President

Forestry Conservation Communications  
Association  
Hall of the States  
444 North Capitol Street  
Washington, DC 20001  
(202) 624-8474

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